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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,917	03/31/2004	Che-Hsiung Hsu	UC0420USNA	6333

23906 7590 03/21/2008  
E I DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
BARLEY MILL PLAZA 25/1122B  
4417 LANCASTER PIKE  
WILMINGTON, DE 19805

EXAMINER
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WOODWARD, ANA LUCRECIA

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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03/21/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/814,917	<b>Applicant(s)</b> HSU, CHE-HSIUNG	
	<b>Examiner</b> Ana L. Woodward	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on February 19, 2008; December 19, 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6,9 and 13-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,9 and 13-21 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/19/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6, 9 and 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 7,071,289 (Sotzing).

Sotzing discloses aqueous dispersions comprising polymers of thieno[3,4-B]thiophene, conventional dopants and a polyanion. Suitable dopants include non-polymeric organic acidic compounds meeting the corresponding component presently claimed (column 7, lines 13-23, etc.). Preferred polyanions include Nafion, corresponding to the presently claimed fluorinated polymeric sulfonic acid (column 3, lines 45-47, column 9, line 28, and claim 26). The compositions have utility in the production of films for use in numerous electronic applications, e.g., electrochromic displays, optically transparent electrodes and antistatic coatings.

In essence, the disclosure of the reference differs from the present claims in not expressly exemplifying an embodiment comprising a thieno[3,4-B]thiophene polymer in combination with a non-polymeric organic acidic dopant and Nafion. It is maintained that it would have been obvious to one having ordinary skill in the art to have employed an aqueous dispersion comprising a thieno[3,4-B]thiophene polymer in combination with a non-polymeric organic acidic dopant and Nafion, for their expected additive effect, as per such being within the general scope of the reference disclosure.

It is maintained that the presently claimed pH limitations, if not met by the reference, would be obvious to one having ordinary skill in the art in accordance with the ultimate utility or application intended.

Regarding claim 4, the reference's thieno[3,4-B]thiophene polymer can additionally contain polymerized units of pyrrole, said copolymer meeting applicant's claimed polypyrrole (column 3, lines 28-32, column 5, lines 37-42).

The amount of polyanion and dopant to be incorporated into the dispersion may vary widely and can be readily determined without undue experimentation. Accordingly, it is maintained that the weight ratio of components per claim 16 would have been within the purview of one having ordinary skill in the art and obvious from the general teachings of the reference.

As to process claims 19 and 20, it is maintained that it would have been an obvious matter of choice to one having ordinary skill in the art to have prepared the aqueous dispersions of the reference via the presently claimed preparatory processes in that the final products resulting from each of said processes would be the same.

#### ***Response to Arguments***

3. Applicant's arguments and amendments filed December 19, 2008 have been fully reconsidered and are persuasive. The previous art rejections have been withdrawn.

#### ***Allowable Subject Matter***

4. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Sotzing disclosure of record does not anticipate or fairly suggest the use of polyaniline.

The previous allowability indication of claim 16 is rescinded in light of the new ground of rejection set forth hereinabove.

***Conclusion***

5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ana L. Woodward/

Primary Examiner

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